

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (Currently Amended). A pattern forming method comprising ~~which is characterized by:~~
forming a liquid-repellent thin film on an insulating surface;
selectively providing affinity for liquid with a surface of the thin film by plasma generating
means; and

forming a pattern by discharging a drop composition to the surface having affinity of liquid of
the thin film by drop discharging means.

2 (Currently Amended). A pattern forming method comprising ~~which is characterized by:~~
forming a thin film having affinity for liquid on an insulating surface;
selectively forming a groove or a hole in a surface of the thin film by plasma generating
means; and

forming a pattern by discharging a drop composition to the groove or the hole in the thin film
by drop discharging means.

3 (Currently Amended). A pattern forming method according to claim 1 ~~or claim 2~~, wherein
the drop composition is selected from the group consisting of a conductive material, a resist material,
a polymer material and a light emitting material.

4 (Original). A pattern forming method according to claim 1, wherein the liquid-repellent thin

film is selected from the group consisting of a semiconductor film, a conductive film and a polymer film.

5 (Original). A pattern forming method according to claim 2, wherein the thin film having affinity for liquid is selected from the group consisting of a silicon oxide film, silicon nitride film, a silicon oxynitride film and a metal oxide film.

6 (Currently Amended). A pattern forming method according to claim 1 ~~or claim 2~~, wherein a pressure each of the plasma generating means and the drop discharging means is in a range of 1.3×10^1 to 1.31×10^5 Pa.

7 (Currently Amended). A pattern forming method according to claim 1 ~~or claim 2~~, wherein a contact angle θ of the surface having affinity for liquid is $0^\circ \leq \theta < 10^\circ$, and a contact angle θ of the liquid-repellent surface is $10^\circ \leq \theta < 180^\circ$.

8 (Currently Amended). A drop discharging apparatus comprising which is characterized by: plasma generating means which makes a surface of a liquid-repellent thin film selectively have affinity for liquid by using a plasma generated by applying a high frequency or a pulsed voltage to a first electrode or a second electrode in a condition where a process gas is introduced between the first electrode and the second electrode; and

drop discharging means which forms a pattern by discharging a drop composition to the surface having affinity for liquid of the thin film.

9 (Currently Amended). A drop discharging apparatus comprising which is characterized by: plasma generating means selectively forms a groove on a surface of a thin film having affinity for liquid by using a plasma generated by applying a high frequency or a pulsed voltage to a first electrode or a second electrode in a condition where a process gas is introduced between the first electrode and the second electrode; and

drop discharging means which forms a pattern by discharging a drop composition to the groove.

10 (Currently Amended). A drop discharging apparatus according to claim 8 ~~or claim 9~~, which has a structure in which the plasma generating means and the drop discharging means are integrated, or a structure in which a continuous process is possible.

11 (Currently Amended). A drop discharging apparatus according to claim 8 ~~or claim 9~~, wherein the plasma generating means comprises an electrode on which a pair of solid dielectric material is installed, and a high frequency or a pulse power source which is introducing a process gas between electrodes.

12 (Original). A drop discharging apparatus according to claim 8, wherein the liquid-repellent thin film is selected from the group consisting of a semiconductor film, a conductive film and a polymer film.

13 (Original). A drop discharging apparatus according to claim 9, wherein the thin film having affinity for liquid is selected from the group consisting of a silicon oxide film, a silicon nitride film, a silicon oxynitride film and a metal oxide film.

14 (Currently Amended). A drop discharging apparatus according to claim 8 ~~or claim 9~~, wherein a pressure each of the plasma generating means and the drop discharging means is in a range of 1.3×10^1 to 1.31×10^5 Pa.

15 (Currently Amended). A drop discharging apparatus according to claim 8 ~~or claim 9~~, wherein a contact angle θ of the surface having affinity for liquid is $0^\circ \leq \theta < 10^\circ$, and a contact angle θ of the liquid-repellent surface is $10^\circ \leq \theta < 180^\circ$.

16 (New). A pattern forming method according to claim 2, wherein the drop composition is selected from the group consisting of a conductive material, a resist material, a polymer material and a light emitting material.

17 (New). A pattern forming method according to claim 2, wherein a pressure each of the plasma generating means and the drop discharging means is in a range of 1.3×10^1 to 1.31×10^5 Pa.

18 (New). A pattern forming method according to claim 2, wherein a contact angle θ of the surface having affinity for liquid is $0^\circ \leq \theta < 10^\circ$, and a contact angle θ of the liquid-repellent surface is $10^\circ \leq \theta < 180^\circ$.

19 (New). A drop discharging apparatus according to claim 9, which has a structure in which the plasma generating means and the drop discharging means are integrated, or a structure in which a continuous process is possible.

20 (New). A drop discharging apparatus according to claim 9, wherein the plasma generating means comprises an electrode on which a pair of solid dielectric material is installed, and a high frequency or a pulse power source which is introducing a process gas between electrodes.

21 (New). A drop discharging apparatus according to claim 9, wherein a pressure each of the plasma generating means and the drop discharging means is in a range of 1.3×10^1 to 1.31×10^5 Pa.

22 (New). A drop discharging apparatus according to claim 9, wherein a contact angle θ of the surface having affinity for liquid is $0^\circ \leq \theta < 10^\circ$, and a contact angle θ of the liquid-repellent surface is $10^\circ \leq \theta < 180^\circ$.